

REMARKS/ARGUMENTS

Claims 1-3, 5, 6, 8-14, and 16-20 are pending. Claims 4, 7, 15 and 21-35 have been canceled without prejudice or disclaimer.

Claims 15, 23, and 32 were rejected under 35 U.S.C. § 112, 1st Paragraph. In view of the canceled claims, this rejection is moot.

Claim 8 was rejected under 35 U.S.C. § 112 2nd Paragraph.

Claims 1 and 8 were rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by Fee et al., U.S. Patent No. 5,956,165.

Claims 2-3, 9, 12-15, and 18 were rejected under 35 U.S.C. § 103(a) for allegedly being unpatentable over Fee et al. and Joline et al., U.S. Patent No. 6,005,696.

Claims 4-6 and 10-11 were rejected under 35 U.S.C. § 103(a) for allegedly being unpatentable over Fee et al. and Amoruso, U.S. Patent No. 6,359,729 B1.

Claim 7 was rejected under 35 U.S.C. 103(a) for allegedly being unpatentable over Fee et al. and Makam et al., U.S. Patent Application Publication No. 2001/0033570 A1. In view of the canceled claims, this rejection is moot.

Claims 16-17 were rejected under 35 U.S.C. 103(a) for allegedly being unpatentable over Fee et al., Joline et al., and Fee, U.S. Patent No. 6,108,113.

Claims 19-20 were rejected under 35 U.S.C. 103(a) for allegedly being unpatentable over Fee et al., and Joline et al., and further in view of Amoruso, U.S. Patent No. 6,359,729 B1.

Claims 21-35 were rejected. However, in view of the canceled claims, the rejections of claims 21-35 are moot.

Independent claims 1 and 8 have been amended to more clearly recite the subject matter of the present invention. Independent claim 12 as originally filed is believed to be patentable over the cited art.

Claim 1 recites a transmission network administration device operative for designating a first optical transmission path to be monitored, a second optical transmission path to be monitored that is different from the first optical transmission path, and a third optical

transmission path to be monitored that is different from the first and second optical transmission paths. A first optical transmission device that is at the beginning of the first optical transmission path is identified. A second optical transmission device that is between the beginning and the end of said second optical transmission path is identified. A third optical transmission device that is at the end of the third optical transmission path is identified.

Fee et al. do not show these aspects of the present invention. Fee et al. do not show a transmission network administration device which designates first, second, and third optical transmission paths to be monitored. Fee et al. describe a network management system facility 460 that oversees the operation of the entire network and provides drop/insert facility 407 with current ancillary network information. *Col. 9, lines 5-8.* The network management system facility provides updated transmission line and signal wavelength information to the drop/insert facility 407 to trigger the facility 407 to update an incoming data signal. *Id, lines 9-13.* See also column 10, lines 23-26 and lines 60-63. Column 12, lines 15-47 describe various operations, including an updating operation (Fig. 7) and a wavelength shifting operation (Fig. 8). Fee et al. do not appear to show a transmission network administration device which designates first, second, and third optical transmission paths to be monitored.

Fee et al. do not show identifying specific devices in each of the optical transmission paths to be monitored. Since Fee et al. do not teach identifying first, second, and third optical transmission paths to be monitored, then they do not teach or suggest identifying a first device in the first optical path (specifically, a device at the beginning of the first path). They do not teach or suggest identifying a second device in the second optical path (specifically, a device disposed between the beginning and end of the second path). They do not show or suggest identifying a third device in the third optical path (specifically, a device at the end of the third path).

Joline et al., likewise, do not show identifying specific devices in each of first, second, and third optical transmission paths to be monitored. Joline et al. describe testing a circuit transport between two points, e.g., between Scranton and Harrisburg. *Col. 9, lines 49-51.* However, they do not teach or suggest identifying a first device in the first optical path (specifically, a device at the beginning of the first path). Joline et al. do not teach or suggest

identifying a second device in the second optical path (specifically, a device disposed between the beginning and end of the second path). They do not show or suggest identifying a third device in the third optical path (specifically, a device at the end of the third path).

Claim 1 further recites transmitting first, second, and third instructions respectively to the first, second, and third optical devices identified in the respective optical paths. As discussed above, Fee et al. do not show identifying first, second, and third optical transmission paths to be monitored. Consequently, they do not show identifying specific devices in each of the optical transmission paths to be monitored. Therefore, Fee et al. does not show or suggest transmitting first, second, and third instructions respectively to the first, second, and third optical devices identified in the respective optical paths.

Joline et al., likewise, do not show transmitting first, second, and third instructions respectively to the first, second, and third optical devices identified in the respective optical paths. Joline et al. describe a switch which connects T1 channels in the SONET ring to the test devices. “The switch 308 selectively connects the T1 channels on the SONET ring 301, carrying the circuit(s) to be tested, to various ones of the test devices 309₁ to 309_n in response to the instructions from central test control 304.” *Col. 8, lines 22-26.* There is no transmitting first, second, and third instructions respectively to the first, second, and third optical devices in Joline et al.

Independent claim 8 recites a method for an optical transmission device. The method includes receiving a first instruction which instructs insertion of a monitoring information signal in the overhead portion of a received transmission signal. The method also includes receiving a second instruction which instructs transmission of a monitoring information signal contained in an overhead portion of a received transmission signal. The method further includes receiving a third instruction which instructs processing of a monitoring information signal contained in an overhead portion of a received transmission signal.

Fee et al. do not show an optical transmission device that receives the first, second, and third instructions that are recited in claim 1. Fee et al. show in Fig. 4A that at a site A (301) which generates a modulated optical data signal. A drop/add facility 407 generates an updated subcarrier modulation signal with updated ancillary network data to be placed onto the

modulated optical data signal. *Col. 7, lines 25-30.* An amplifier 450 conditions the modulated optical data signal and provides it to an optical cross-connect switch (OCCS) 470.

Fee et al., however, do not show “an optical transmission device” or a method for an optical transmission device that includes receiving the first, second, and third instructions. Site A (301), the drop/add facility 407, and the amplifier/OCCS 450/470 were cited in the Office action. These three elements, which were identified in the Office action as first, second, and third devices, do not teach “an optical transmission device” or an optical transmission device that receives the specifically recited first, second, and third instructions.

Independent claim 12 recites identifying a first set of optical transmission devices associated with a first monitoring zone, wherein the first set of optical transmission devices include first and second end-point devices. A second set of optical transmission devices associated with a second monitoring zone is identified, wherein the second set of optical transmission devices include third and fourth end-point devices. First and second insertion-type instruction signals are transmitted respectively to the first and third end-point devices. Passthrough-type instruction signals are transmitted to first relay devices in the first set of devices and to second relay devices in the second set of devices. End-point processing type instruction signals are transmitted to the second and fourth end-point devices.

Fee et al. do not show these aspects of the present invention. They disclose the notion of inserting ancillary network data in the optical signal in a manner that does not affect the optical signal. *Abstract.* Fig. 4A shows the use of a conventional drop/add facility 407 for doing this. *Col. 7, lines 27-30.* They do not show first and second insertion-type instruction signals that are transmitted respectively to first and third end-point devices in different sets of optical devices. They do not show transmitting end-point processing type instruction signals to second and fourth end-point devices. They do not show transmitting passthrough-type instructions to relay devices.

Joline et al., likewise, fail to show these aspects of the present invention. Joline et al. shows that circuit transport between two cities can be tested. They disclose in Fig. 3 a switch 308 selectively connects the T1 channels on the SONET ring 301, carrying the circuit(s) to be tested, to various ones of the test devices 309₁ to 309_n. *Col. 8, lines 23-25.*

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PATENT

For at least the foregoing reasons the rejections of the pending claims are believed to be overcome.

CONCLUSION

In view of the foregoing, all claims now pending in this Application are believed to be in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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